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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,949	05/25/2001	Patrick McWilliams	SSD-0041D	6656
29116	7590	04/04/2005	EXAMINER	
ROBINSON & POST, L.L.P. NORTH DALLAS BANK TOWER, SUITE 575 12900 PRESTON ROAD, LB-41 DALLAS, TX 75230			MOORE JR, MICHAEL J	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/865,949	Applicant(s) MCWILLIAMS, PATRICK	
	Examiner Michael J. Moore, Jr.	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-11 is/are rejected.
- 7) ☒ Claim(s) 6 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/25/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/25/2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claims **1, 2, 5, 7, 8, and 12** are objected to because of the following informalities:

Regarding claim **1**, on line 2, the word "programing" should be "programming". On line 3, the word "a" is needed between words "to" and "first". On line 5, the phrase "the first device layers" should be "first device layers" to have proper antecedent basis. On lines 6-7, the phrase "the second device layers" should be "second device layers" to have proper antecedent basis. Lastly, on line 12, the phrase "the established protocol cell" should be "an established protocol cell" to have proper antecedent basis.

Regarding claim **2**, on line 2, the word "fame" should be "frame".

Regarding claim **5**, on line 1, "claim4" should be "claim 4". Lastly, on lines 1-2, the phrase "the communication" should be "the communication information" to have proper antecedent basis.

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Regarding claim 7, on line 2, the word "programing" should be "programming". On line 3, the word "a" is missing between words "to" and "first". On line 5, the phrase "the first device layers" should be "first device layers" to have proper antecedent basis. On lines 6-7, the phrase "the second device layers" should be "second device layers" to have proper antecedent basis. Lastly, on line 15, the phrase "the established protocol cell" should be "an established protocol cell" to have proper antecedent basis.

Regarding claim 8, on line 2, the word "fame" should be "frame".

Regarding claim 12, on line 3, the word "of" is missing between words "ones" and "the".

Appropriate correction is required.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13 of copending Application No. 09/866162 in view of Castellano (U.S. 6,690,670). The claimed subject

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matter of claim 13 of the copending application encompasses the claimed subject matter of claim 1 of the instant application.

Regarding claim 1, "A communication bridge comprising: an established protocol interface and the communication bridge...and the second device layers when in the second mode of operation" corresponds to "A communication bridge comprising: an established protocol interface and the communication bridge...and the second device layers when in the second mode of operation" of the copending application. "A serial interface" corresponds to "a serial interface" of the copending application. "A down bridge direction and an up bridge direction" corresponds to "a down bridge direction and an up bridge direction" in the copending application.

"A means for converting the established protocol cell to a transport container, the means being operatively connected to the established protocol interface" corresponds to "a means for converting the established protocol cell to a transport container, the means being operatively connected to the established protocol interface" in the copending application. "A means for applying the transport container to the serial interface, the means for applying being operatively connected to the means for converting and to the serial interface" corresponds to "a means for applying the transport container to the serial interface, the means for applying being operatively connected to the means for converting and to the serial interface" in the copending application.

Claim 13 of copending application 09/866162 does not claim "a means for detecting back pressure" as well as "an assembler means for embedding back pressure

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detection into the transport container, and being operatively connected to the means for detecting” as claimed in claim 1 of the instant application. However, Castellano teaches a system and method for transmission between ATM layer and PHY layer devices where a receiver (ATM layer device 12b or PHY layer device 14b of Figure 4A) signals to its remote transmitter to stop sending cells when the receiver starts experiencing congestion (detects back pressure) by piggybacking a cell level flow control indicator in its local transmitter bit stream (embeds back pressure detection into transport container) as spoken of on column 11, lines 17-37.

At the time of the invention, it would have been obvious to someone skilled in the art to combine the back pressure teachings of Castellano with claim 13 of the copending application to arrive at claim 1 of the instant application in order to provide an optimal way to transmit flow control information between ATM and PHY interfaces.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claims **1-5, and 7-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Castellano (U.S. 6,690,670). Castellano teaches all of the limitations of the listed claims with the reasoning that follows.

Regarding claim 1, “a communication bridge” is anticipated by element 10 of Figure 5. “An established protocol interface” is anticipated by ATM layer serial interface 20 shown in Figure 5. “A means for programming the established protocol interface to a first mode of operation and a second mode of operation” is anticipated by ATM layer serial interface 20 (means) shown in Figure 5 that communicates transmissions from ATM layer device 12b to PHY layer device 14b (first mode) through PHY layer serial interface 30 and transmissions from PHY layer device 14b to ATM layer device 12b (second mode) through PHY layer serial interface 30 as shown in Figure 5.

“A means for transferring established protocol cells between the communication bridge and the first device layers when in the first mode of operation and for transferring the established protocol cells between the communication bridge and the second device layers when in the second mode of operation” is anticipated by ATM layer serial interface 20 (means) shown in Figure 5 that communicates transmissions from ATM layer device 12b to PHY layer device 14b (first mode) through PHY layer serial interface 30 and transmissions from PHY layer device 14b to ATM layer device 12b (second mode) through PHY layer serial interface 30 as shown in Figure 5.

“A serial interface” is anticipated by PHY layer serial interface 30 shown in Figure 5. “A down bridge direction and an up bridge direction” is anticipated by the Tx signals from ATM layer serial interface 20 to PHY layer serial interface (down bridge direction)

as well as the Rx signals from PHY layer serial interface 30 to ATM layer serial interface 20 (up bridge direction) as shown in Figure 5.

“A means for detecting back pressure” as well as “a means for converting the established protocol cell to a transport container, the means being operatively connected to the established protocol interface including an assembler means for embedding back pressure detection into the transport container, and being operatively connected to the means for detecting” is anticipated by PHY layer device 14b (receiver) of Figure 5 that signals to its remote transmitter (ATM layer device 12b) to stop sending cells when the receiver starts experiencing congestion (detects back pressure) by piggybacking a cell level flow control indicator in its local transmitter bit stream (embeds back pressure detection into transport container) as spoken of on column 11, lines 17-37.

Lastly, “a means for applying the transport container to the serial interface, the means for applying being operatively connected to the means for converting and to the serial interface” is anticipated by ATM layer serial interface 20 that transmits Tx signals to PHY layer serial interface 30.

Regarding claim 2, “wherein the means for applying includes a means for arranging a predefined number of transport containers into a frame” is anticipated by ATM layer serial interface 20 (means) that transmits Tx signals (containers) to PHY layer serial interface 30.

Regarding claim 3, “wherein each transport container includes at least one control byte and the communication bridge comprises a means for embedding the

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detected back pressure into the control byte” is anticipated by the piggybacking of an n-bit cell level flow control indicator (control byte) in the receivers local transmitter bit stream (embeds back pressure detection into transport container) as spoken of on column 11, lines 17-37.

Regarding claim 4, “a means for embedding communication information into at least one control byte in a predefined transport container of each block” is anticipated by the piggybacking of an n-bit cell level flow control indicator (control byte) in the receivers local transmitter bit stream (embeds back pressure detection into transport container) at the end of every cell (predefined transport container) as spoken of on column 11, lines 17-37.

Regarding claim 5, “wherein the communication comprises a back pressure information” is anticipated by the piggybacking of an n-bit cell level flow control indicator (control byte) in the receivers local transmitter bit stream (embeds back pressure detection into transport container) at the end of every cell (predefined transport container) as spoken of on column 11, lines 17-37.

Regarding claim 7, “a communication bridge” is anticipated by element 10 of Figure 5. “An established protocol interface” is anticipated by ATM layer serial interface 20 shown in Figure 5. “A means for programming the established protocol interface to a first mode of operation and a second mode of operation” is anticipated by ATM layer serial interface 20 (means) shown in Figure 5 that communicates transmissions from ATM layer device 12b to PHY layer device 14b (first mode) through PHY layer serial

interface 30 and transmissions from PHY layer device 14b to ATM layer device 12b (second mode) through PHY layer serial interface 30 as shown in Figure 5.

“A means for transferring established protocol cells between the communication bridge and the first device layers when in the first mode of operation and for transferring the established protocol cells between the communication bridge and the second device layers when in the second mode of operation” is anticipated by ATM layer serial interface 20 (means) shown in Figure 5 that communicates transmissions from ATM layer device 12b to PHY layer device 14b (first mode) through PHY layer serial interface 30 and transmissions from PHY layer device 14b to ATM layer device 12b (second mode) through PHY layer serial interface 30 as shown in Figure 5.

“A serial interface” is anticipated by PHY layer serial interface 30 shown in Figure 5. “A down bridge direction and an up bridge direction” is anticipated by the Tx signals from ATM layer serial interface 20 to PHY layer serial interface (down bridge direction) as well as the Rx signals from PHY layer serial interface 30 to ATM layer serial interface 20 (up bridge direction) as shown in Figure 5.

“A means for receiving a transport container including a header, and a payload field and at least one control byte with each byte comprising a plurality of bits” is anticipated by PHY layer serial interface 30 (means) that receives cells composed of a header field and a payload field as spoken of on column 1, lines 55-60 as well as the n-bit flow control identifier (control byte) piggybacked to a cell as spoken of on column 11, lines 24-30.

“A means for detecting back pressure” as well as “a means for converting the transport container to the established protocol cell, the means being operatively connected to the established protocol interface and to the means for receiving” is anticipated by ATM layer device 12b (receiver) of Figure 5 that signals to its remote transmitter (PHY layer device 14b) to stop sending cells when the receiver starts experiencing congestion (detects back pressure) by piggybacking a cell level flow control indicator in its local transmitter bit stream as spoken of on column 11, lines 17-37. Lastly, “a means for applying the established protocol cell to the established protocol interface, the means for applying being operatively connected to the means for converting and to the established protocol interface” is anticipated by PHY layer serial interface 30 that transmits Tx signals to PHY layer serial interface 30.

Regarding claim 8, “wherein the means for receiving the transport container includes a means for receiving a frame having a predefined number of transport containers” is anticipated by PHY layer serial interface 30 (means) that receives Tx signals (containers) from ATM layer serial interface 20.

Regarding claim 9, “wherein the frame being composed of N blocks of transport containers where N is a positive number with each block including M transport containers where M is a positive number and each transport container includes at least one control byte, and the means for receiving the transport containers includes a means for sequentially receiving a first transport container of a first block through a last transport container of a last block” is anticipated by the Tx signals (transport containers) transmitted by ATM layer interface 20 to PHY layer serial interface 30 as well as the n-

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bit flow control identifier (control byte) piggybacked to a cell as spoken of on column 11, lines 24-30.

Regarding claim **10**, “wherein the means for receiving includes a means for detecting communication information in the at least one control byte in a predefined transport container of each block” is anticipated by PHY layer device 14b (receiver) of Figure 5 that signals to its remote transmitter (ATM layer device 12b) to stop sending cells when the receiver starts experiencing congestion (detects back pressure).

Regarding claim **11**, “wherein the means for detecting communication information further comprises a means for detecting back pressure information in the at least one control byte in selected transport containers” is anticipated by PHY layer device 14b (receiver) of Figure 5 that signals to its remote transmitter (ATM layer device 12b) to stop sending cells when the receiver starts experiencing congestion (detects back pressure).

Allowable Subject Matter

8. Claims **6 and 12** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim **6**, the prior art of record teaches the communication bridge of claim **5**. The prior art of record fails to teach where each block represents a sub-port where each sub-port is capable of connecting to a plurality of ports and where a means

sets a first logic state in a bit of a control byte that identifies a port having back pressure.

Regarding claim **12**, the prior art of record teaches the communication bridge of claim **11**. The prior art of record fails to teach where each block represents a sub-port where each sub-port is capable of connecting to a plurality of ports and where a means for detecting back pressure includes a means for detecting a first logic state of a bit identifying a port having back pressure.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rich (U.S. 6,452,927), Parchak et al. (U.S. 6,795,396), Holden et al. (U.S. 6,147,997), Loewen et al. (U.S. 6,798,744), and Livermore et al. (U.S. 6,542,511) are all references that contain material pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM



FRANK DUONG
PRIMARY EXAMINER